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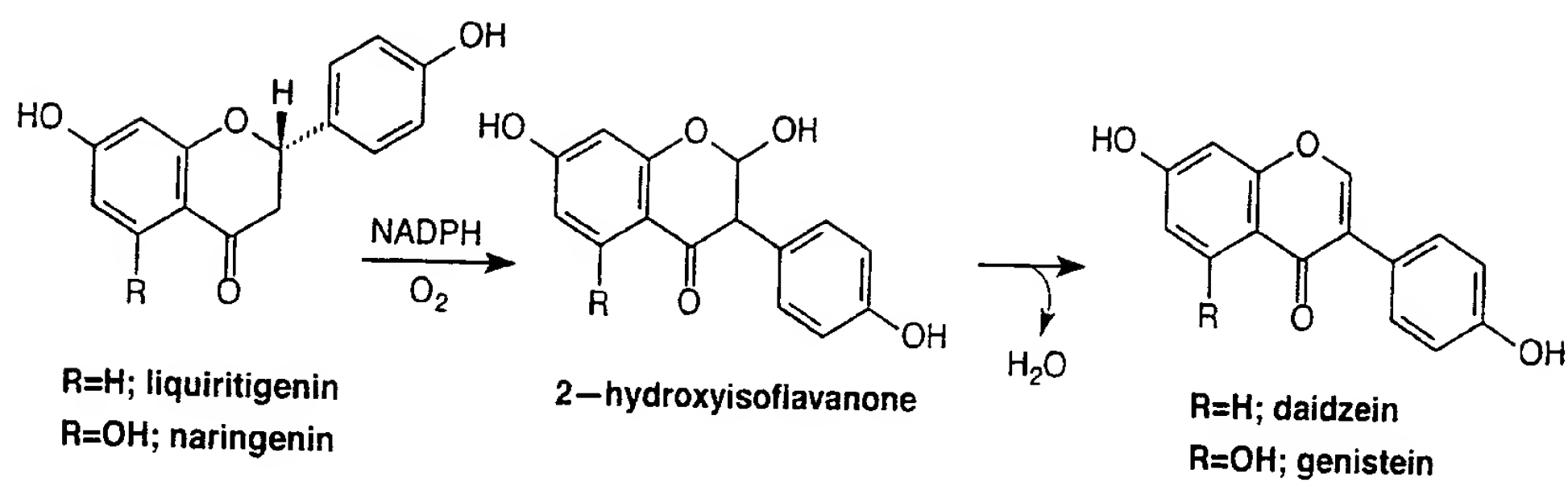


Fig. 1

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1 GAGCAAAGAT CAAACAAACC AAGGACGAGA ACACGATGTT GCTTGAACCTT
51 GCACTTGGTT TATTGGTTTT GGCTCTGTTT CTGCACTTGC GTCCCACACC
101 CACTGCAAAA TCAAAAGCAC TTCGCCATCT CCCAAACCCA CCAAGCCCCA
151 AGCCTCGTCT TCCCTTCATA GGACACCTTC ATCTCTTAAA AGACAAACTT
201 CTCCACTACG CACTCATCGA CCTCTCCAAA AAACATGGTC CCTTATTCTC
251 TCTCTACTTT GGCTCCATGC CAACCGTTGT TGCCTCCACA CCAGAATTGT
301 TCAAGCTCTT CCTCCAAACG CACGAGGCAA CTTCTTCAA CACAAGGTTC
351 CAAACCTCAG CCATAAGACG CCTCACCTAT GATAGCTCAG TGGCCATGGT
401 TCCCTTCGGA CCTTACTGGA AGTTCGTGAG GAAGCTCATC ATGAACGACC
451 TTCTCAACGC CACCACTGTA AACAAGTTGA GGCCTTTGAG GACCCAACAG
501 ATCCGCAAGT TCCTTAGGGT TATGGCCCAA GGCAGAGAGG CACAGAAGCC
551 CCTTGACTTG ACCGAGGAGC TTCTGAAATG GACCAACAGC ACCATCTCCA
601 TGATGATGCT CGGCGAGGCT GAGGAGATCA GAGACATCGC TCGCGAGGTT
651 CTTAAGATCT TTGGCGAATA CAGCCTCACT GACTTCATCT GGCCATTGAA
701 GCATCTCAAG GTTGGAAGT ATGAGAAGAG GATCGACGAC ATCTTGAACA
751 AGTTCGACCC TGTCGTTGAA AGGGTCATCA AGAAGCGCCG TGAGATCGTG
801 AGGAGGAGAA AGAACGGAGA GGTGTGTTGAG GGTGAGGTCA GCGGGGTTTT
851 CCTTGACACT TTGCTTGAAT TCGCTGAGGA TGAGACCATG GAGATCAAAA
901 TCACCAAGGA CCACATCAAG GGTCTTGTTG TCGACTTTTT CTCGGCAGGA
951 ACAGACTCCA CAGCGGTGGC AACAGAGTGG GCATTGGCAG AACTCATCAA
1001 CAATCCTAAG GTGTTGGAAA AGGCTCGTGA GGAGGTCTAC AGTGTTGTGG
1051 GAAAGGACAG ACTTGTGGAC GAAGTTGACA CTCAAACCT TCCTTACATT
1101 AGAGCAATCG TGAAGGAGAC ATTCCGCATG CACCCGCCAC TCCCAGTGGT
1151 CAAAAGAAAG TGCACAGAAG AGTGTGAGAT TAATGGATAT GTGATCCCAG
1201 AGGGAGCATT GATTCTCTTC AATGTATGGC AAGTAGGAAG AGACCCCAA
1251 TACTGGGACA GACCATCGGA GTTCCGTCTT GAGAGGTTCC TAGAGACAGG
1301 GGCTGAAGGG GAAGCAGGGC CTCTTGATCT TAGGGGACAA CATTTTCAAC
1351 TTCTCCCATT TGGGTCTGGG AGGAGAATGT GCCCTGGAGT CAATCTGGCT
1401 ACTTCGGGAA TGGCAACACT TCTTGCATCT CTTATTAGT GCTTCGACTT
1451 GCAAGTGCTG GGTCCACAAG GACAGATATT GAAGGGTGGT GACGCCAAAG
1501 TTAGCATGGA AGAGAGAGCC GGCCTCACTG TTCCAAGGGC ACATAGTCTT
1551 GTCTGTGTTT CACTTGCAAG GATCGGCGTT GCATCTAAAC TCCTTTCTTA
1601 ATTAAGATCA TCGTCATCAT CATCATATGT AATATTTACT TTTTGTGTGT
1651 TGATAATCAT CATTTCAATA AGGTCTCATT CATCTACTTT TTATGAAGTA
1701 TATAAGCCCT TCCATGC

Fig. 2

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CYP93C1v2 1 ...MLLELALGLLVLALFLHLRPTPTAKSKALRHLPNPPSPKPRLPFIGH 47
 |. | : || || |||| ||| |||
 CYP93B1 1 MEPQLVAVSVLVSALICYFFFRPYFHRYGKNL.....PPSPFFRLPIIGH 45
 .
 48 LHLLKDKLLHYALIDLSKKHGPLFSLYFGSMPTVVASTPELFLQTHE 97
 :|:| ||| . .|| :||| ||| ||| ||| ||| .
 46 MHML.GPLLHQSFHNLSHRYGPLFSLNFGSVLCVVASTPHFAKQLLQTNE 94
 .
 98 ATSFNTRFQTSAIRRLTYDSSVAMVPFGPYWKFVRKLIMNDLLNATTVNK 147
 . || | :...|:::| ||: ||. | | : | ||: | : || | ||: || . .: |
 95 .LAFNCRIESTAVKKLTYESSLAFAPYGDYWRFIKKLSMNELLGSRINN 143
 .
 148 LRPLRTOQIRKFLRVMAQGAEAQKPLDLTEELLKWTNSTISMMMLGEAEE 197
 . || | : . ||: . | | . .: ||| ||| ||. ||. ||. ||| |||
 144 FQHLRAQETHQLRLLSNRARAFEAVNITEELLKLTNNVISIMMVGEAEE 193
 .
 198 IRDIAREVLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDI LNKFDPVVERV 247
 ||: | : | . ||| : . . ||| | : . : ||| : | : || . ||| :
 194 ARDVVRDVTEIFGEFNVSDFIWLFKKMDLQGF GKRIEDLFQRFDTLVERI 243
 .
 248 IKKRREIVR.RRKNGEVVE.GEVSGV..FLDTLLEFAEDETMEIKITKDH 293
 | || : : ||: ||. | | | : ||| ||: ||| ||| : |
 244 ISKREQTRKDRRRNGKKGEQSGDGIRDFLDILLDCTEDENSEIKIQRVH 293
 .
 294 IKGLVVDFFSAGTDSTAVATEWALAE LINNPKVLEKAREEVYSVVGKDRL 343
 || | : . ||| . ||| . ||: . ||| ||| ||: | ||: | ||| : . ||| |||
 294 IKALIMDFFTAGTDTTAISTEWALVELVKKPSVLQKVREEIDNVVGKDRL 343
 .
 344 VDEVDTQNLPHYIRAIVKETFRMHPPLPVVKRKCTEECEINGYVIPEGALI 393
 | : | | ||| : . ||. ||| : ||| . | | | : ||| ||| . | :
 344 VEESDCPNLPYLQAILKETFRLHPPVPMVTRRCVAECTVENYVIPEDSL 393
 .
 394 LFNWQVGRDPKYWDRPSEFRPERFLETGAEGEAGPLDLRGQHFQLLPFG 443
 ||| : ||. ||: || | ||| ||| . : . | . | . ||| ||| |||
 394 FVNVWSIGRNPKFWDNPLEFRPERFLKLEGD.SSGVVDVRGSHFQLLPFG 442
 .
 444 SGRMC PGVN LATSGMATLLASLIQCFDLQVLGPQGQILKGGDAKVSMEE 493
 ||| ||| ||| . || . || : ||| || | . ||. | : ||| | : . .: |
 443 SGRMC PGVSLAMQEV PALLGAI IQCFDFHVVGPKGEILKGDDIVINVE 492
 .
 494 RAGLTVPRAHSLVCVPLARIGVASKLLS... 521
 | ||| ||| . ||| . | | |
 493 RPGLTAPRAHNLVCVPVDR TSGGGPLKIEC 523

Fig. 3

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1 CAACACCTAA GAGTAACTAA TAAGAACTTT CTTTCTACTT CTTAGTATAC
51 TTAACAACTT AAGTAAATAT ACTACAAAGA AGCTATACAC CATGTTGGTG
101 GAACTTGCAG TTA CTCTATT GCTCATTGCT CTCTTCTTAC ACTTGCGTCC
151 AACACCTACT GCAAAATCAA AGGCTCTTCG CCACCTTCCA AATCCACCAA
201 GCCCTAAACC ACGTCTTCCA TTCATAGGTC ATCTTCACCT TTTGGATAAC
251 CCACTTCTTC ACCACACTCT TATCAAGTTA GGAAAGCGTT ATGGCCCTTT
301 GTACACTCTT TACTTTGGTT CCATGCCTAC CGTTGTTGCA TCCACTCCTG
351 ACTTGTTTAA ACTTTTCCTT CAAACCCATG AAGCTACTTC CTTTAACACA
401 AGATTCCAAA CCTCTGCTAT TAGTCGTCTT ACCTATGACA ACTCTGTTGC
451 TATGGTTCCA TTTGCACCTT ATTGGAAGTT TATTAGAAAG CTTATCATGA
501 ACGACTTGCT CAACGCCACC ACTGTAAACA AATTGAGGCC ATTGAGGAGC
551 CGAGAAATCC TTAAGGTTCT TAAGGTCATG GCTAATAGTG CTGAAACTCA
601 ACAGCCACTT GATGTCACTG AGGAGCTTCT CAAGTGGACA AACAGCACAA
651 TCTCTACCAT GATGTTGGGT GAGGCCGAAG AGGTTAGAGA TATTGCTCGT
701 GATGTTCTTA AGATCTTTGG AGAATATAGT GTTACAACT TTATTTGGCC
751 TTTGAACAAG TTTAAGTTTG GAACTATGA TAAGAGAACT GAGGAGATTT
801 TCAATAAGTA TGATCCTATC ATTGAAAAGG TTATCAAGAA ACGACAAGAG
851 ATTGTTGAACA AAAGAAAAAA TGGAGAAATC GTAGAAGGCG AGCAGAATGT
901 TGTTTTTCTT GACACTTTGC TTGAATTTGC ACAAGATGAG ACCATGGAGA
951 TCAAAATTAC AAAGGAACAA ATCAAGGGTC TTGTTGTGGA TTTTTTCTCT
1001 GCAGGAACAG ACTCCACCGC CGTGTCTACA GAATGGACTT TATCAGAGCT
1051 CATCAATAAT CCTAGAGTGT TGAAGAAAGC TCGAGAGGAG ATTGACTCTG
1101 TTGTGGGAAA AGATAGACTG GTTGATGAAT CAGATGTTCA GAATCTTCCT
1151 TACATTAAAG CCATCGTAAA AGAAGCATTT CGCTTGCACC CACCACTACC
1201 TGTAGTCAAA AGAAAATGTA CACAAGAATG TGAGATCGAC GGGTATGTGG
1251 TTCCAGAAGG AGCACTAATA CTTTTCAATG TCTGGGCGAGT GGAAGAGAC
1301 CCAAAATATT GGGTAAAGCC ATTGGAATTT CGTCCAGAGA GGTTCATAGA
1351 AAATGTTGGT GAAGGTGAAG CAGCTTCAAT TGATCTTAGG GGTCAACATT
1401 TCACACTTCT ACCATTTGGG TCTGGAAGAA GGATGTGTCC TGGAGTCAAT
1451 TTGGCTACTG CAGGAATGGC CACAATGATT GCATCTATTA TCCAATGCTT
1501 CGATCTCCAA GTACCTGGTC AACATGGAGA AATATTGAAT GGTGATTATG
1551 CTAAGGTTAG CATGGAAGAG AGACCTGGTC TCACAGTTCC AAGGGCACAT
1601 AATCTCATGT GTGTTCTCTT TGCAAGAGCT GGTGTCGCAG ATAACTTCT
1651 TTCCTCCTAA AATATCTTGA GAGGATGAAT CACCAACATA TAGCCTCTCT
1701 TTGGTACTAC AAAATTATGA TGTAATTTTC TTATTTTTTC TGTCACAAAG
1751 GAAGTGTTGT AACTTGTAAT TGCATACAAA ATCTATAAAT TTTATCATCC
1801 TATTCATTAT T

Fig. 4

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mtIFS 1 MLVELAVTLLLLIALFLHLRPTPTAKSKALRHLPNPPSPKPRLPFIGHLHL 50
 ||.|||. ||.:|||||||||||||||||||||||||||||||||
 CYP93C1v2 1 MLLELALGLLVLALFLHLRPTPTAKSKALRHLPNPPSPKPRLPFIGHLHL 50
 51 LDNPLLHHTLIKLGKRYGPLYTLYFGSMPTVVASTPDLFKLFLQTHEATS 100
 | . |||: || | |.:|||:|||||||||||||:|||||||||
 51 LKDKLLHYALIDLSKKHGPLFSLYFGSMPTVVASTPELFLKLFLQTHEATS 100
 101 FNTRFQTS AISRLTYDNSVAMVPFAPYWKFIRKLIMNDLLNATTVNKLRLP 150
 ||||||||| |||||.||||||| ||||:|||||||||||||
 101 FNTRFQTS AIRRLTYDSSVAMVPFGPYWKFVRKLIMNDLLNATTVNKLRLP 150
 151 LRSREILKVLKVMANSAETQQPLDVTEELLKWTNSTISTMMLGEAEVVRD 200
 ||.:| | |.:||| || |.|||.||||||||||| |||||:|
 151 LRTQQIRKFLRVMAQGAEAQKPLDLTEELLKWTNSTISMMLGEAEIIRD 200
 201 IARDVLKIFGEYSVTNFIWPLNKFKEGNYDKRTEEIFNKYDPIIEKVIKK 250
 |||:|||||||.|.|||| | | |.:| | |.:| | |.:| | |
 201 IAREVLKIFGEYSLTDFIWPLKHLKVGKYEKRIDDILNKFDPVVERVIKK 250
 251 RQEIVNKRKNGEIVEGEQNVVFLDTLLEFAQDETMEIKITKEQIKGLVVD 300
 |.||| :||||:|||| |. |||||||:|||||||: |||||
 251 RREIVRRRKNGEVVEGEVSGVFLDTLLEFAEDETMEIKITKDHKGLVVD 300
 301 FFSAGTDSTAVSTEWTLSELINNPRVLKKAREEIDSVVGKDRLVDESVDQ 350
 |||||||||.||| |.|||||:||.|||||: ||||||||| |
 301 FFSAGTDSTAVATEWALAEINNPKVLEKAREEVYSVVGKDRLVDEVDTQ 350
 351 NLPYIKAIVKEAFRLHPPLPVVKRKCTQCECEIDGYVVPEGALILFNWVAV 400
 |||||:|||| ||:|||||||||||:||||.|||:||||||| |
 351 NLPYIRAIVKETFRMHPPLPVVKRKCTEECEINGYVIPEGALILFNWVQV 400
 401 GRDPKYWVKPLEFRPERFIENVGEGEAASIDLRGQHFTLLPFGSGRRMCP 450
 ||||| :| |||||:| ||| :||||| |||||||||
 401 GRDPKYWDRPSEFRPERFLETGAEGEAGPLDLRGQHFQLLPFGSGRRMCP 450
 451 GVNLATAGMATMIASIIQCFDLQVPGQHGEILNGDYAKVSMEERPGLTVP 500
 |||||.||||:|:||||||| | |:|| | ||||||| |||||
 451 GVNLATSGMATLLASLIQCFDLQVLGPQGQILKGGDAKVSMEERAGLTVP 500
 501 RAHNLMCVPLARAGVADKLLSS 522
 |||.|.||||| ||| ||||
 501 RAHSLVCVPLARIGVASKLLS 521

Fig. 5

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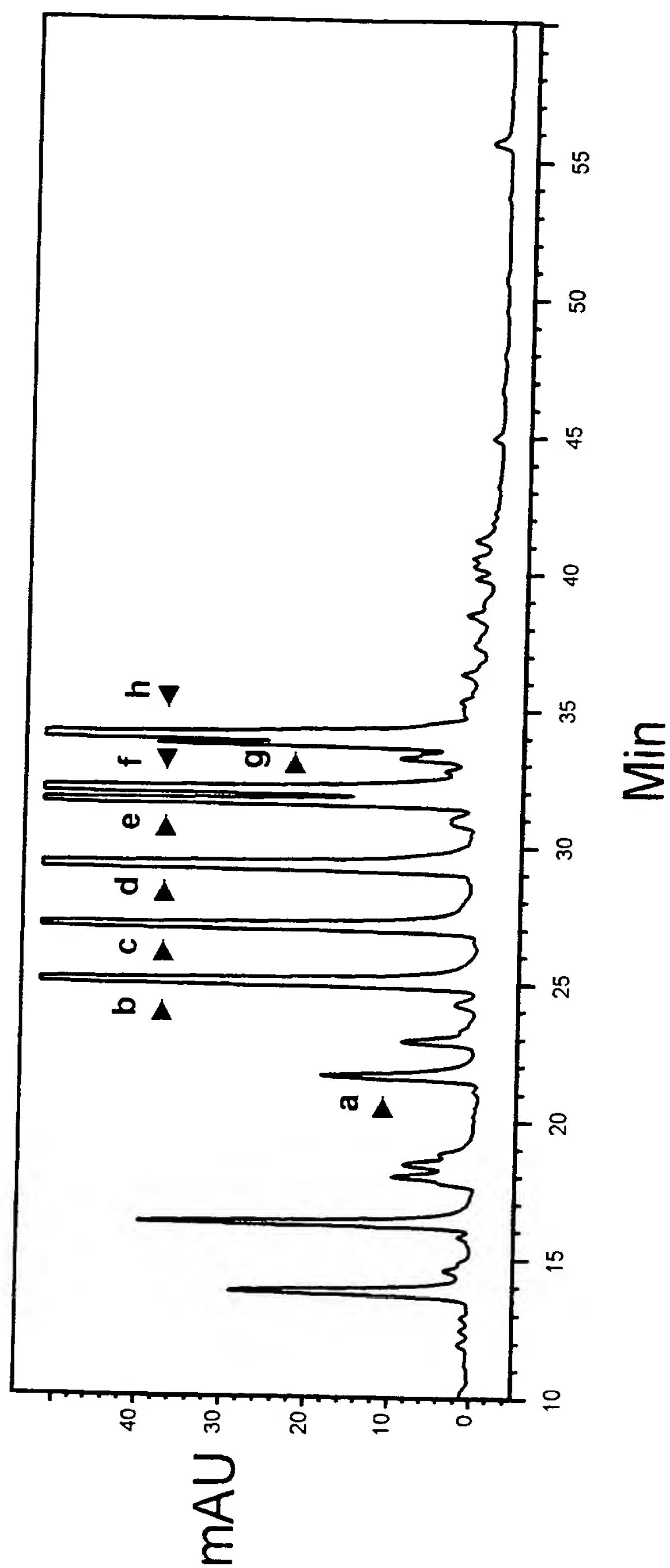


Fig. 6A

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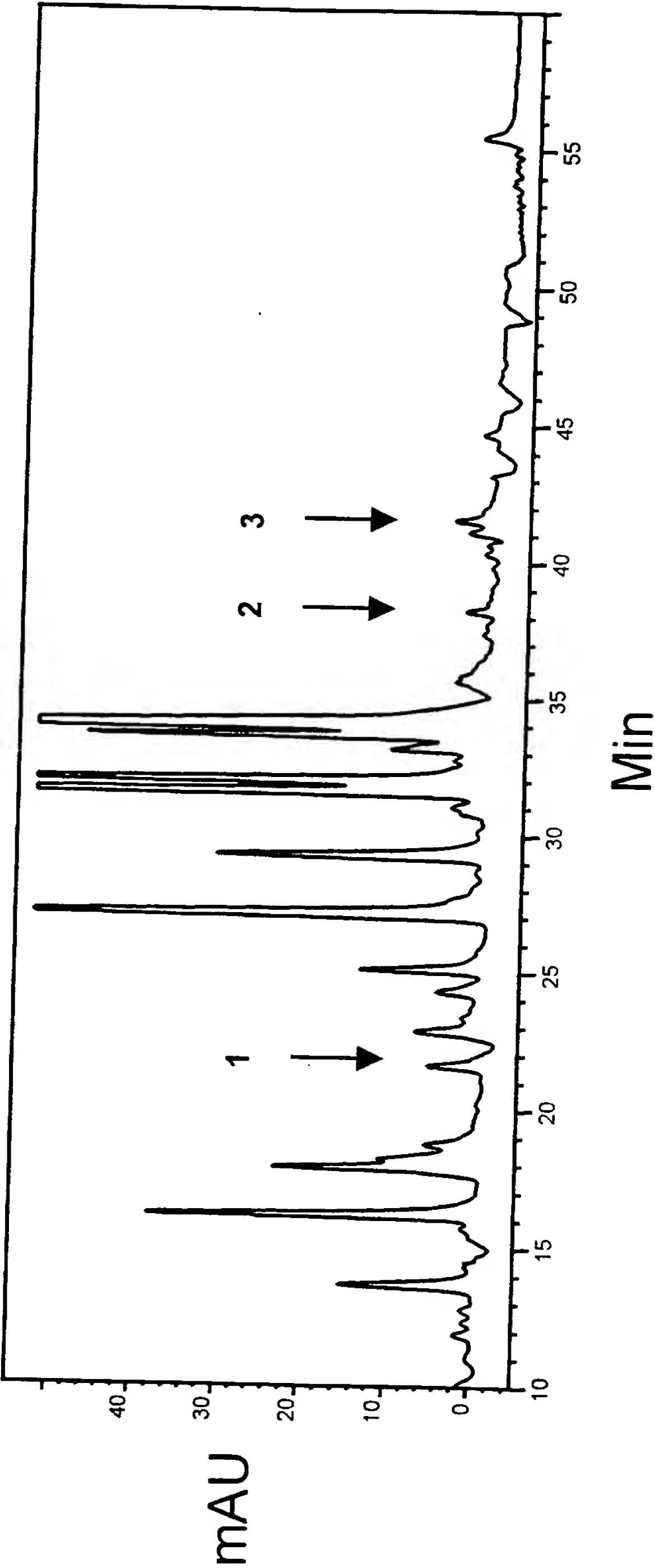


Fig. 6B

FIG. 6B

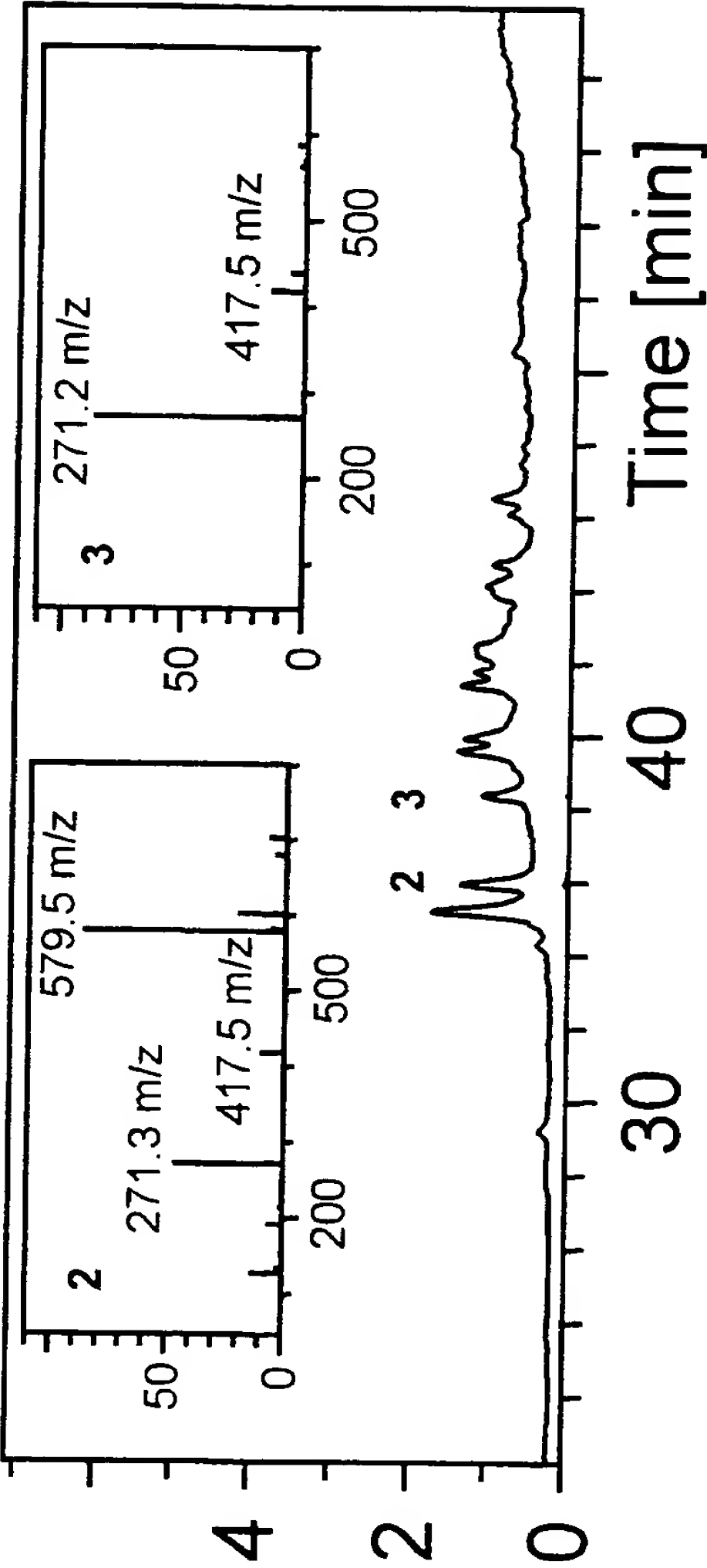


Fig. 6C

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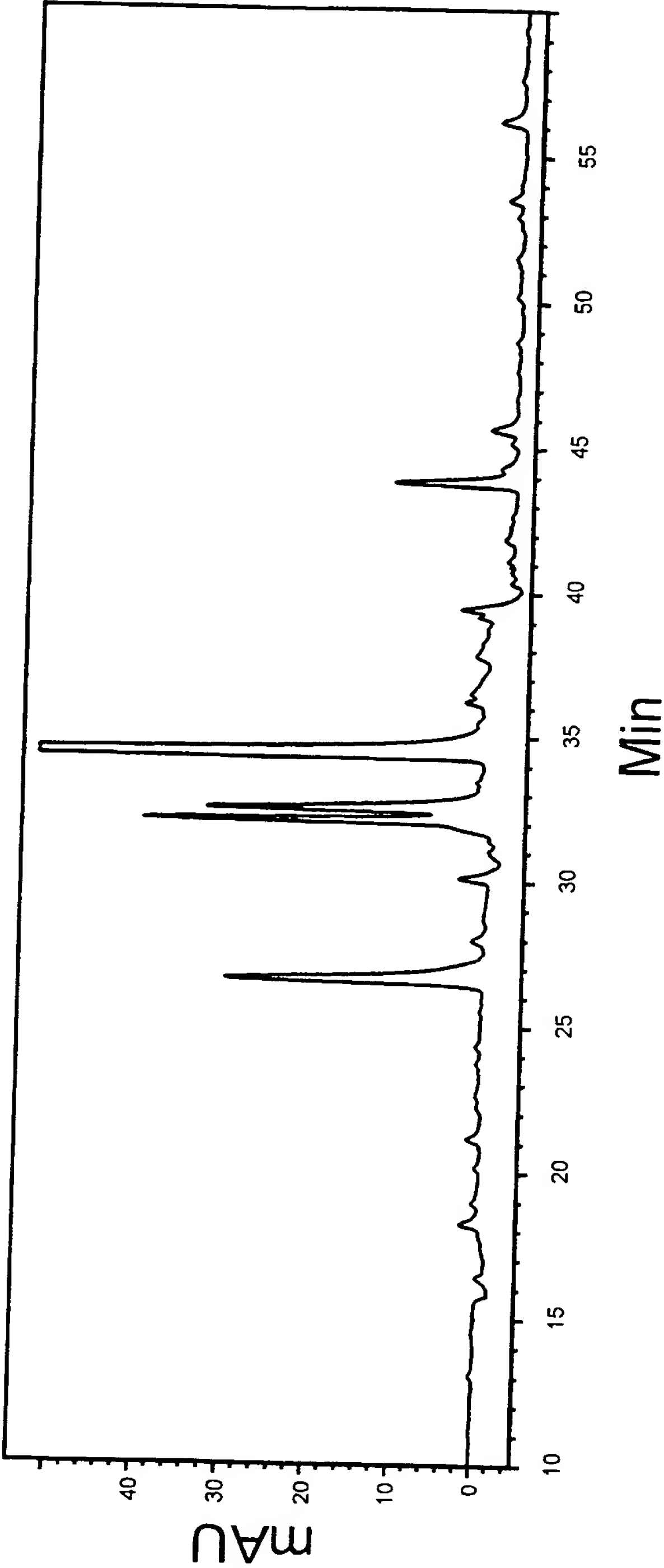


Fig. 7A

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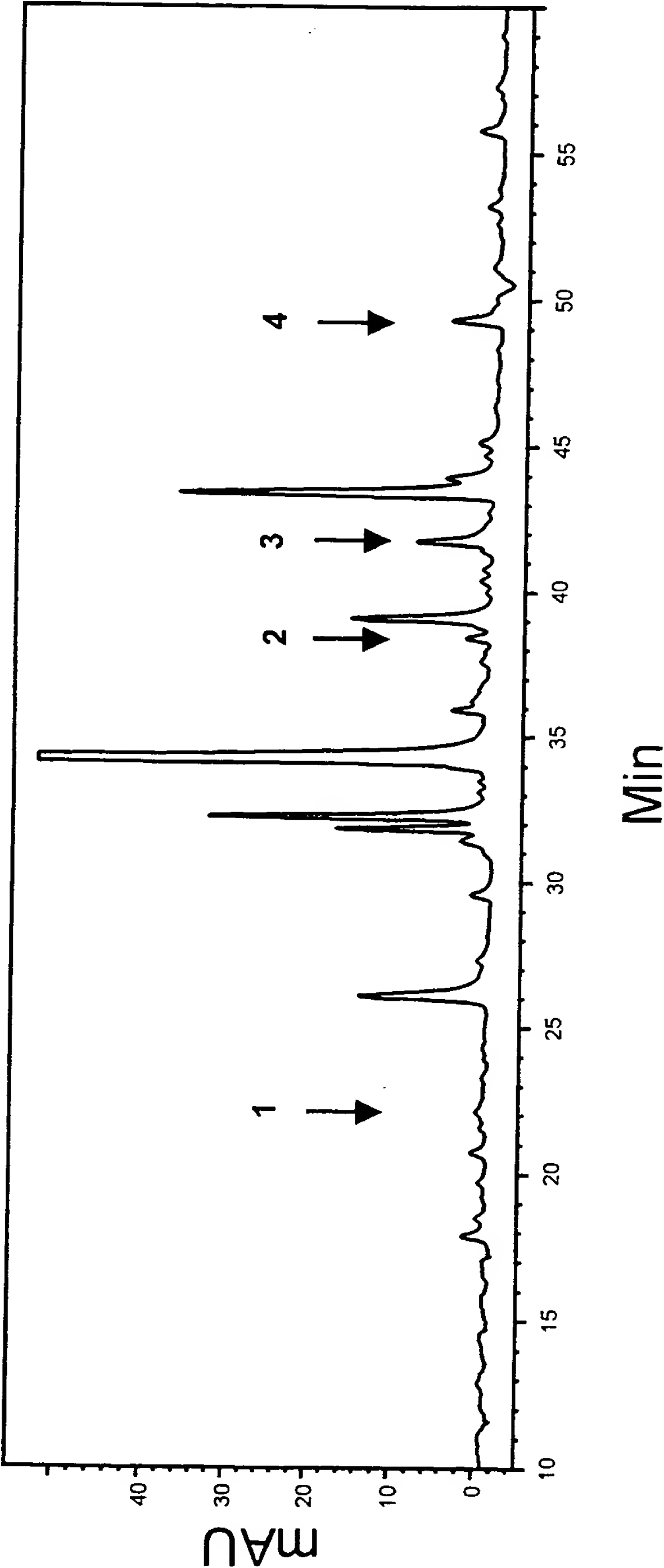


Fig. 7B

FIG. 7B

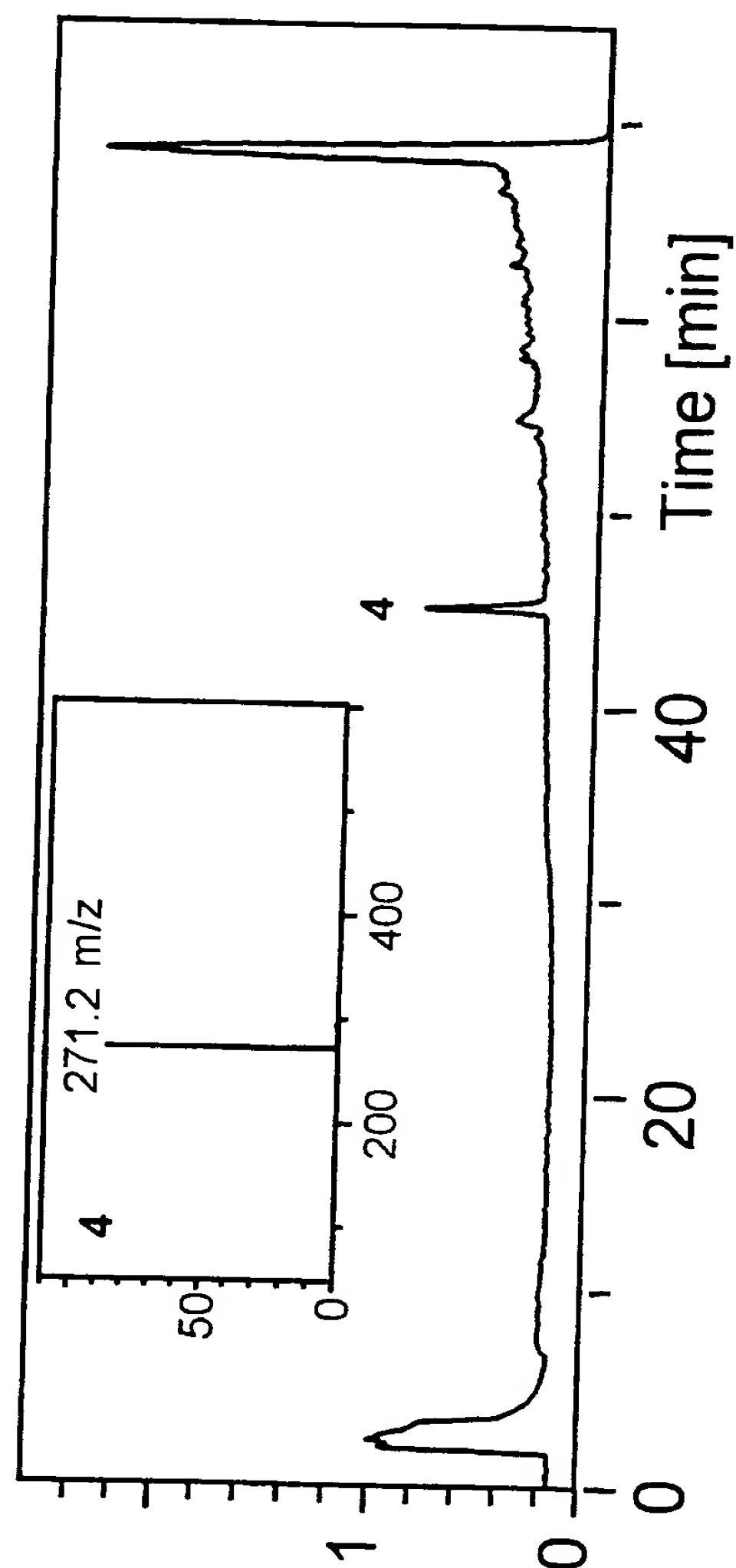


Fig. 7C

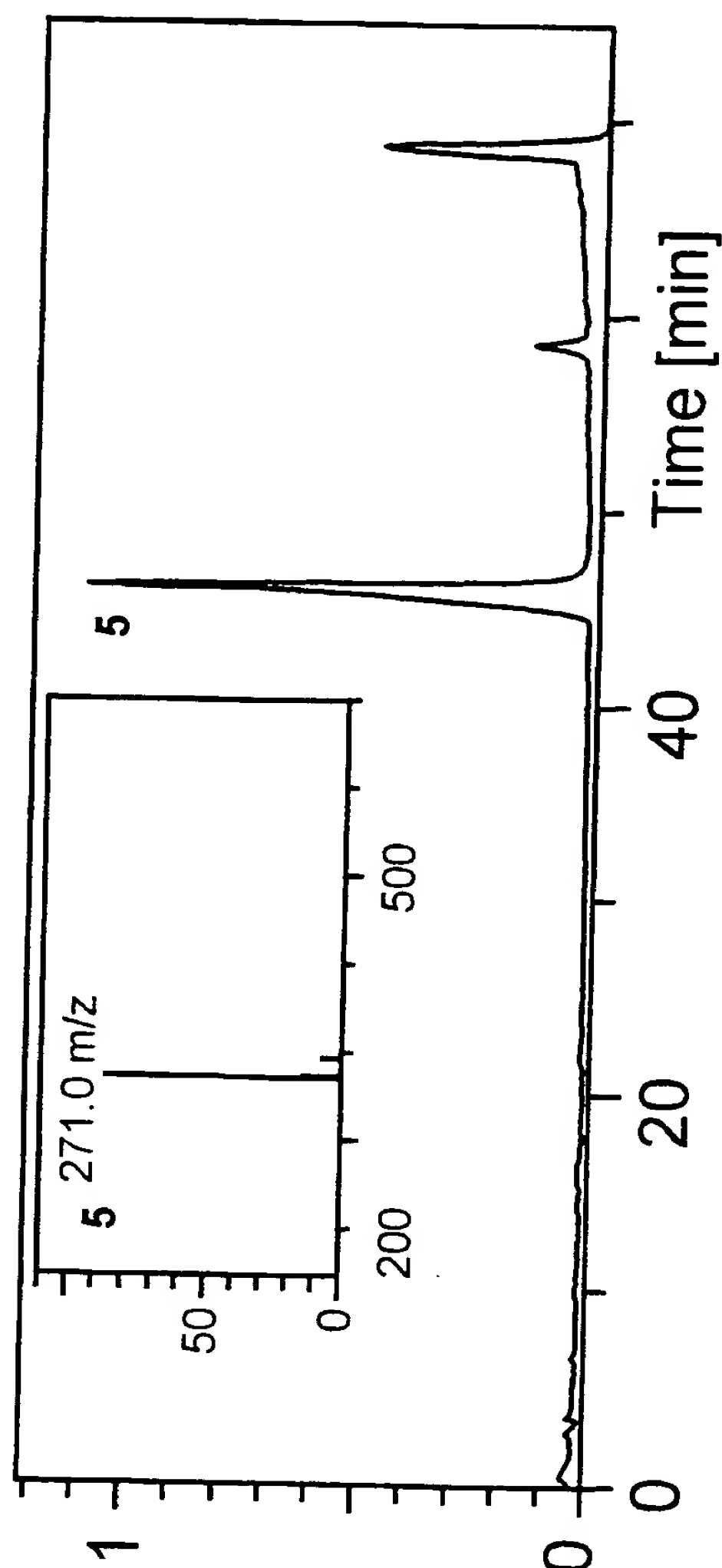


Fig. 7D

FIG. 8A

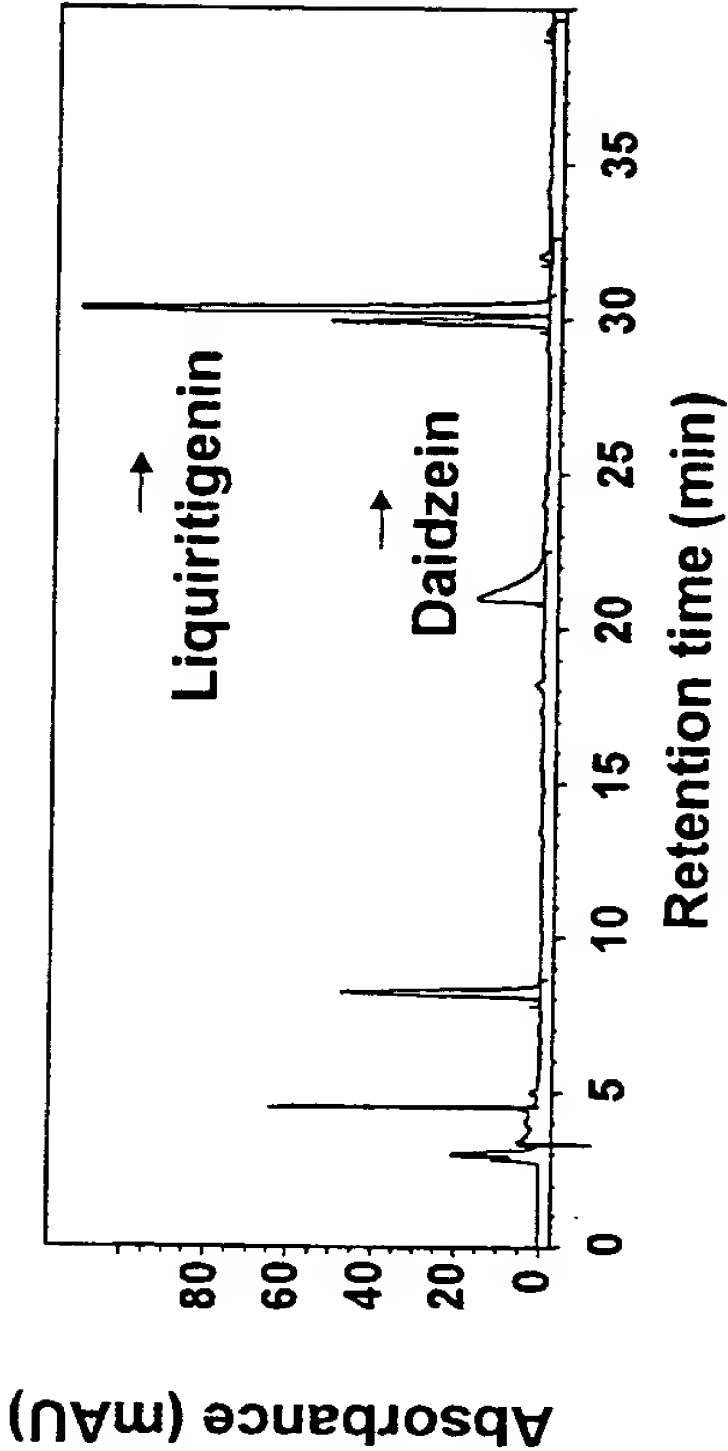


Fig. 8A

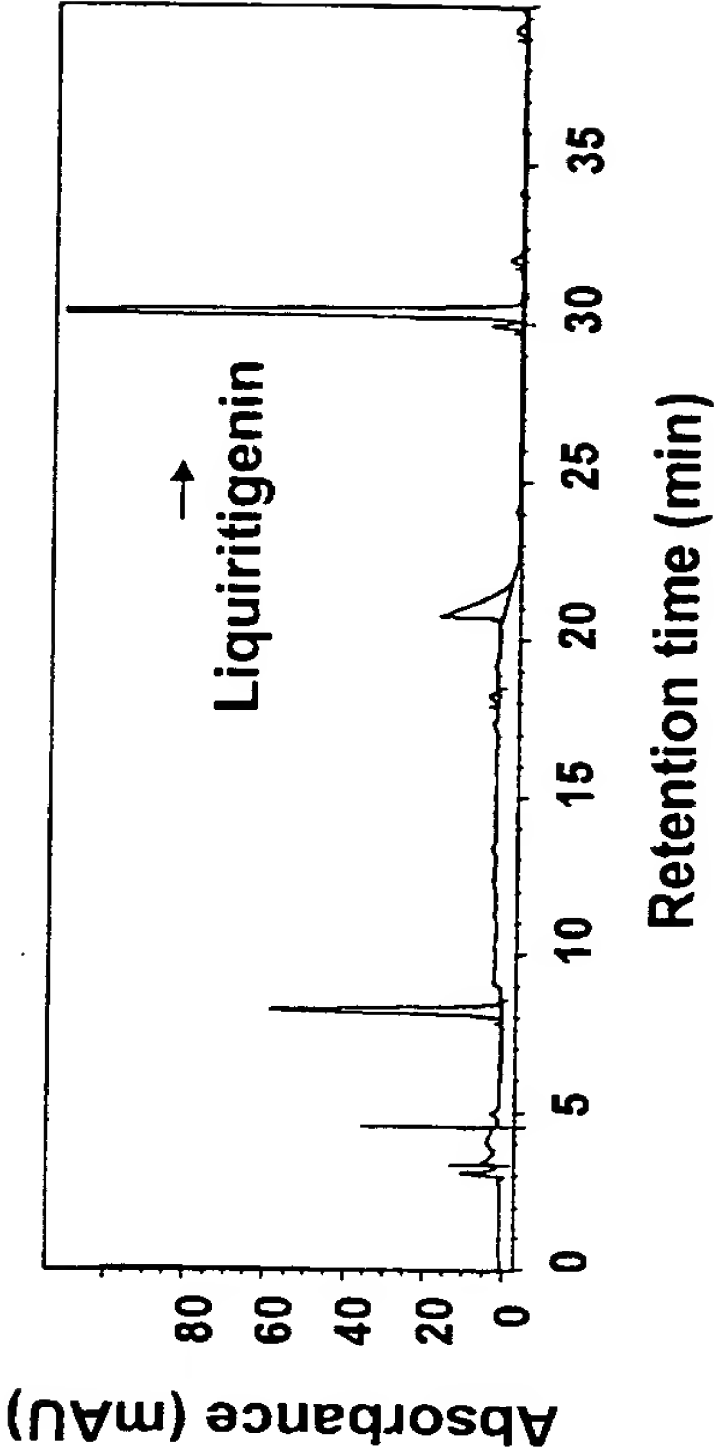


Fig. 8B

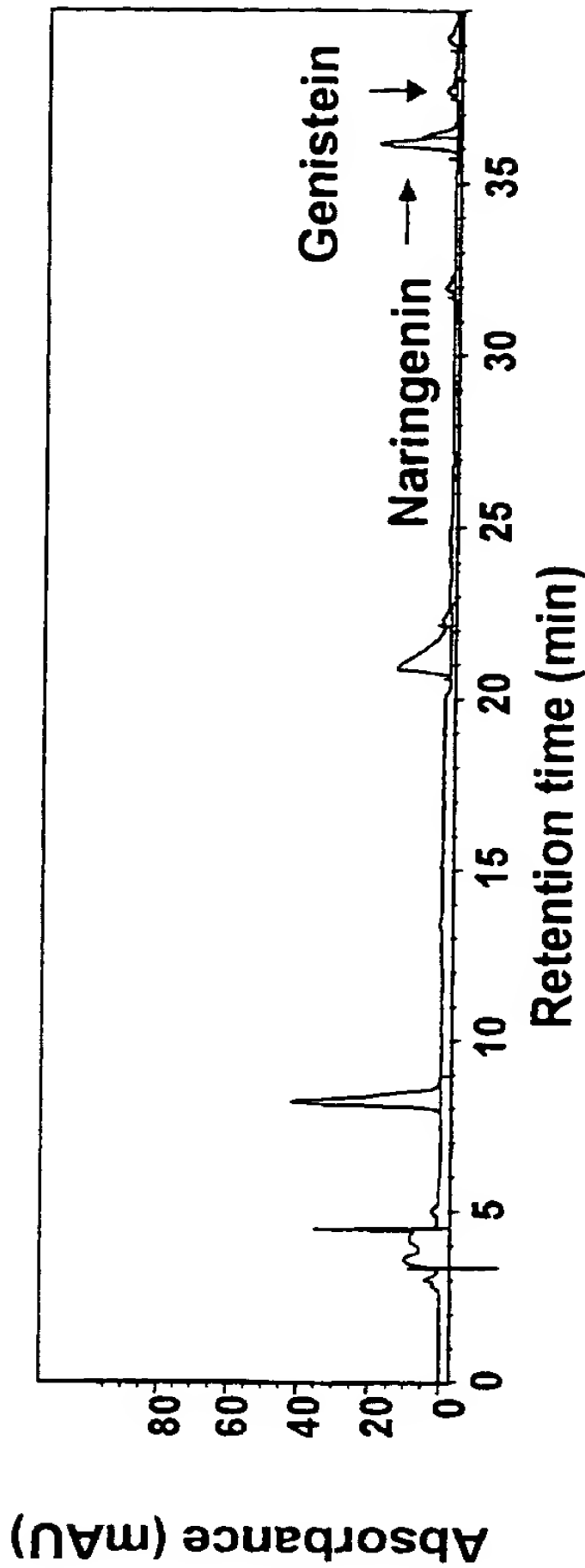


Fig. 8C

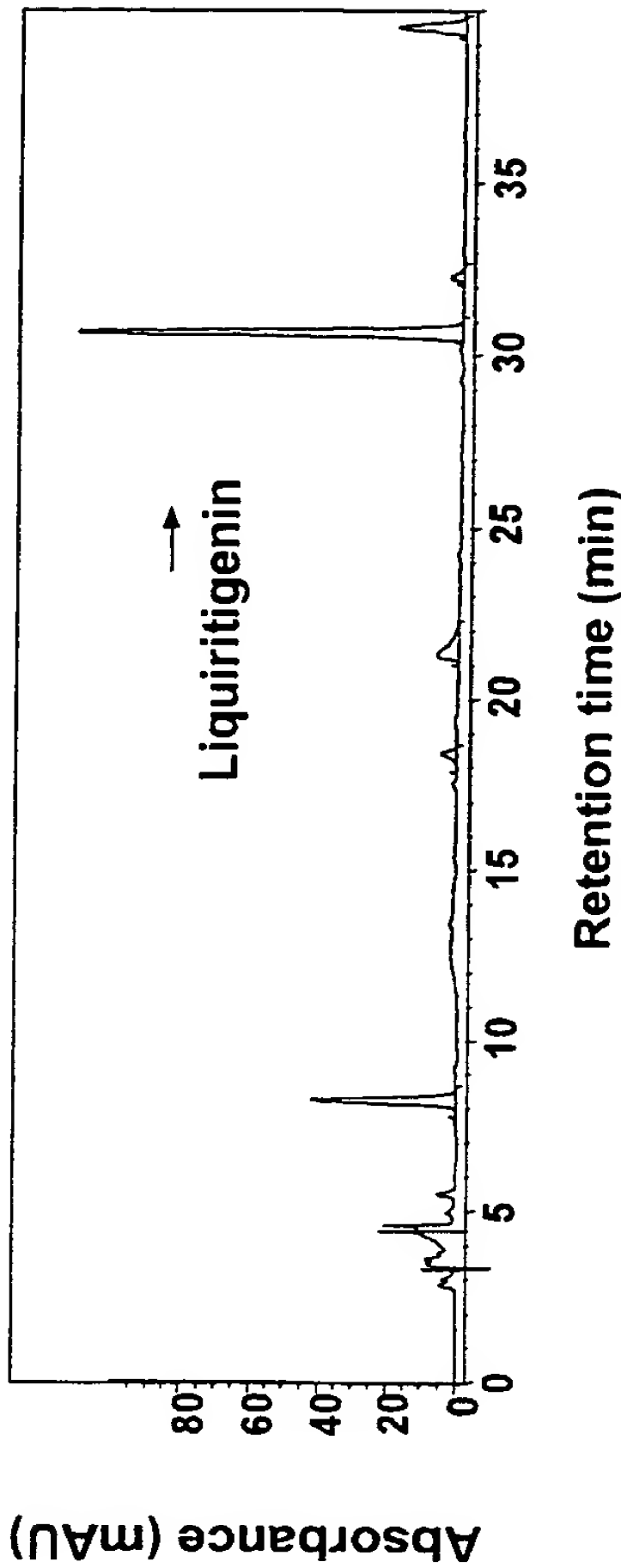


Fig. 8D

Fig. 9A

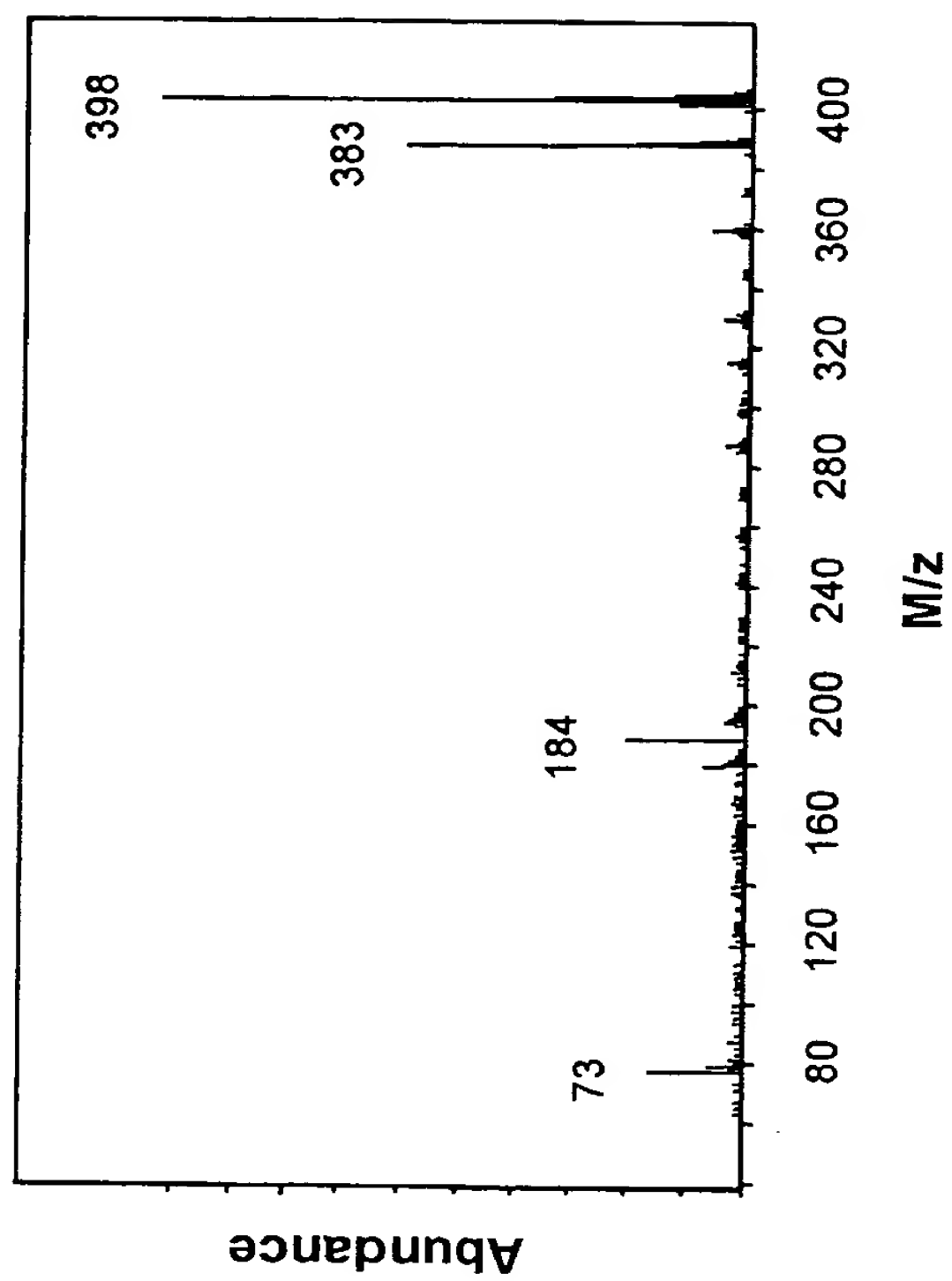


Fig. 9B

